

## **ABSTRACT OF THE DISCLOSURE**

A global positioning system (GPS) receiver is provided, comprising a converter for converting received GPS signals to in-phase (I) and quadrature-phase (Q) digital signals; a correlator for generating expected codes and correlating the I and Q digital signals with the expected codes to output sampled I values and sampled Q values for a tap; a filter for filtering the sampled I values and sampled Q values to modified I values and modified Q values, and for summing the modified I values and modified Q values to output variation data; a memory for storing the variation data; a domain transformer for performing domain transform on the variation data to output a transformed value; and a comparator for comparing the transformed value to a threshold value for determining the presence of a peak at the tap.